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# REPORT ON THE IMPLICATIONS OF USING NEW EDITING PROCEDURES, ON SAMPLING ERROR SPECIFICATIONS, AND ON PREPARING A "CHARACTERISTIC" REPORT BASED ON A FULL-YEAR FILE

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Author(s):

Nancy Heiser Carrie Spencer

#### Prepared for:

U.S. Department of Agriculture Food and Nutrition Service 3101 Park Center Drive 2nd Floor Alexandria, VA 22302

Project Officer: Alana Landey

#### Prepared by:

Mathematica Policy Research, Inc. 600 Maryland Avenue, S.W. Suite 550 Washington, D.C. 20024

Project Director: Pat Doyle

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#### **EXECUTIVE SUMMARY**

For technical analyses of the Food Stamp Program (FSP), the Food and Nutrition Service (FNS) of the United States Department of Agriculture often relies on the Integrated Quality Control System (IQCS). In the past, FNS has provided estimates of key characteristics of FSP participants based on a two-month sample of food stamp households from the IQCS. In the future, FNS will provide these characteristics based on a full-year analysis file.

MPR will prepare this full-year analysis file and the text and tables for a report on the characteristics of FSP participants. We will use the same editing procedures we have used in the past to edit the full-year file, compute the sample weights for the file and weight each of the 12 monthly samples independently, and use the same methods we have used in the past to specify sampling error estimates. To produce the tables for the "Characteristics" reports, we will switch from SAS to TPL, which is a more efficient software package. Finally, we propose following the basic content and format of previous "Characteristics" reports for the 1989 report. However, we propose including a section in Chapter 3 on seasonal variations in the data and a section which compares summer 1988 data to summer 1989 data.

Thus, the procedures involved in preparing a full-year file and a "Characteristics" report based on this file are the same as past procedures except for a slightly different weighting scheme, the use of TPL instead of SAS for table production, and a few adjustments to the report format focusing on seasonal changes within the year and changes between years.

#### I. INTRODUCTION

The Food and Nutrition Service (FNS) of the United States Department of Agriculture relies on various databases to estimate the impact of proposed changes to the Food Stamp Program (FSP), to assess the effects of program reforms, and to provide independent estimates of the key characteristics of FSP participants. One of the most relevant and accessible databases which FNS relies on for these program analyses is the Integrated Quality Control System (IQCS). While the primary purpose of the IQCS is to measure the accuracy of eligibility and benefit amount determinations, the IQCS also provides FNS with an ongoing sample of FSP case records for analytic purposes.

In the past, a two-month sample from the IQCS has been used to provide estimates of key characteristics of FSP participants. In the future, however, these estimates will be based on a full-year sample from the IQCS. In this report, we discuss the data file development and analyses processes involved in, as well as the implications of, preparing a full-year file and using the full-year file to produce estimates of the characteristics of FSP participants. Since this report includes a discussion of the implications of using new editing procedures and a discussion of sampling error specifications, it serves as two deliverables.

and 4) documenting this process. Next, we discuss in detail these steps and any minor adjustments needed for the preparation of a full-year file.

#### A. EDITING THE FILE

The process of editing the IQCS analysis file requires resolving inconsistencies in the data which can be rooted in the initial data from the recipient household, the entry of the data into the computerized master case record system, the extraction of food stamp information from the IQCS, or a failure to update some items in the case record file. The objective of this editing process is to create an analysis file which is consistent and easily manipulated yet fully representative of the underlying survey data. Our current editing strategy, discussed in detail in Anderson (1988) and summarized below, results in a consistent file which best reflects the reported data. Since our current editing scheme is not dependent on time periods or sample sizes, it is fully applicable to a full-year file.

Our editing strategy includes procedures for discovering inconsistencies in the data, for recoding missing data, for determining out of range values, and for making any recodes necessary for producing a consistent file conducive to analysis. Our editing strategy also ensures that various measures of household size, income and benefits are consistent. For example, the raw data file contains two measures of households size: 1) a reported certified household size and 2) an affiliation flag for each person in the household from which a household size can be calculated. An effective editing strategy ensures that these two measures are consistent.

Our editing scheme ensures this consistency by following the steps below:

- Step 1: We first use the affiliation flags on each person in the household to construct a final measure of household size.
- Step 2: We then calculate a measure of household gross income by adding all affiliated persons' non-excluded incomes. If this value is the same as reported household gross income, we use it as the final household gross income and we calculate the earnings deduction as 20 percent of person-level earnings and net income and benefit level

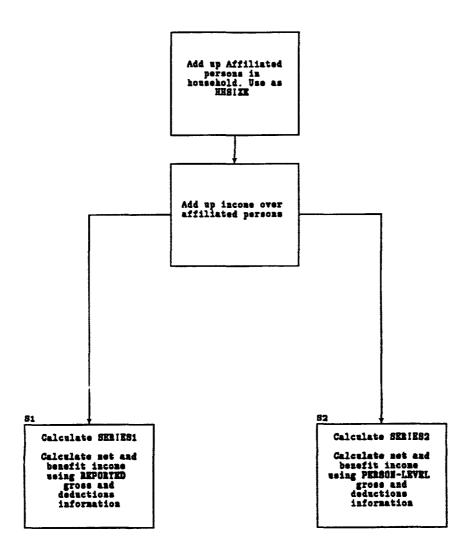
based on these values. For cases where the constructed and reported gross incomes differ, we move to Step 3.

- Step 3: We construct two different scenarios of net income and benefit values basing one scenario on the reported household gross income and the other scenario on the summation of the person-level gross income. We use reported household gross income and reported earned income deduction to compute one scenario of net income and benefit values that we call Series 1. We use person-level gross income and a calculated earned income to compute an alternative scenario of net income and benefit values, called Series 2.
- Step 4: We then compare these two scenarios against the reported information that is recorded on the data file to determine which is most consistent. If the reported household gross income implies one or both of reported net income and benefit level, but the person-level value does not, we use the Series 1 values. If the person-level gross income implies one or both of reported net income and benefit level, but the reported household gross income does not, we use the Series 2 values. If both imply the same, we use Series 2 values. If neither gross income measure implies reported net income or benefit level, we choose the series that implies values closest to both net income and benefit level, adjusting reported benefit by the error amount. The series that implies values closest to both the reported benefit and net income is defined based on a distance function (implied benefit reported benefit)<sup>2</sup> + (implied net income reported net income)<sup>2</sup>.
- Step 5: We reconcile person-level earnings with the chosen earned income deduction if necessary. If the difference is only a dollar (due to rounding), we adjust the first person's earnings by a dollar. If the difference is greater than a dollar, we adjust earnings proportionally across affiliated persons. If the difference is equal to one person's reported income, we remove that person's income. Finally, if no earnings are reported, we adjust the "other earned income" category for the household head.
- Step 6: Person-level amounts (other than earnings) are reconciled with the chosen gross income measure in the same manner as the person-level earned income amounts.
- Step 7: Lastly, we sum all person-level income amounts to obtain final household-level income amounts and benefits. This summation ensures that all required relationships hold among the final variables.

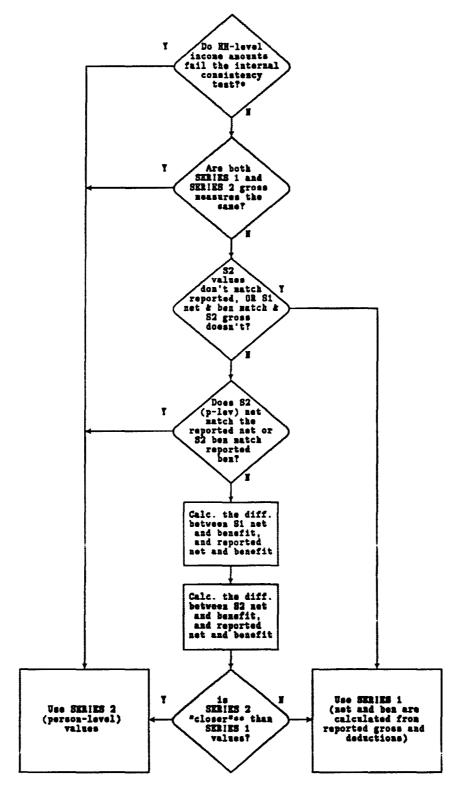
This editing strategy (also detailed in Figure I) obtains a high degree of consistency between person-level and household level data and ensures the integrity of the database. Again, because this editing scheme does not depend on time periods or sample sizes, it is fully applicable to a full-year file with no implications.

FIGURE 1 QC EDITIES SCHOOL

Step 1: Determine FSP household size Step 2: Sam income across persons Step 3: Calculate alternative householdlevel (SERIES 1) and person-level (SERIES 2) income amounts



Step 4: Determine which series is most consistent with reported bonus and net income information

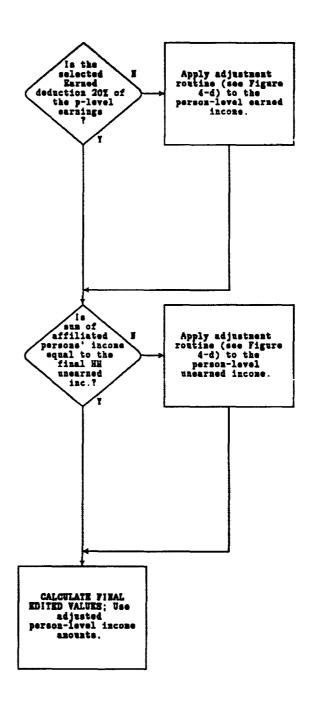


- Is the implied earnings deduction based on the reported gross income less than the reported earnings deduction?
- \*\* "Closer" means that:

Step 5: Reconcile the person-level earnings with the selected earned income deduction (as decided in Step 4)

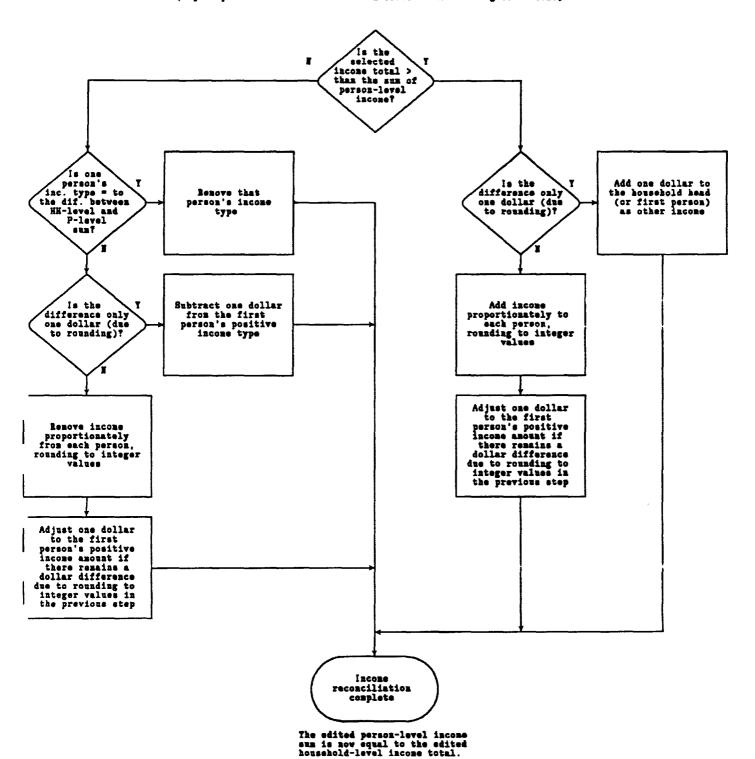
Step 6: Reconcile the person-level unsarred income with the selected household —level unsarred income (as decided in Step 4)

Step 7: Calculate all final values



# FIGURE 1 PERSON-LEVEL INCOME ADJUSTMENT ROUTINE

#### (Adjust person-level income to match selected household gross income)



#### B. WEIGHTING THE SAMPLES

Samples from the IQCS are weighted so that they represent the national caseload. To obtain a full representation of the national food stamp caseload, the state samples are assigned weights according to the number of participating households in each state as reported to FNS. Specifically, the weights for each state sample are derived by dividing the state's caseload in a certain month by the state's sample size in that same month. The final weighted caseloads are then calculated by multiplying the weights by the sample sizes. The weights for several states are adjusted to reflect the disproportionately stratified QC sample designs in those states. For these stratified states, a separate weight is obtained for each stratum. Specifically, the state monthly caseload is divided into stratum shares and then these shares are divided by the sample sizes for each stratum.<sup>2</sup>

In the past, FNS has supplied us with the final weights for the two-month sample based on area and stratum and on an average caseload over the two months. As we prepare the 1989 full-year file, however, we will compute the weights for each of the 12 independent monthly samples in the full-year file. Specifically, FNS will supply us with the information necessary to compute the weights (caseload information from program operations data and sampling plans for each state). We will then compute these weights by state and by stratum code as described above for each of the 12 independent samples in the full-year file.

Our new procedures differ slightly from past procedures, then, because we will compute the weights instead of FNS, and we will compute them for each month instead of for a set of months. Weighting each month independently gives FNS the flexibility to base FSP analyses on one month, a set of months, or on all 12 months because the weights must simply be divided by the number of months chosen. For example, when the full-year file is used for analysis purposes,

<sup>&</sup>lt;sup>2</sup>See Appendix B for an example of weights developed for the Summer 1988 file.

the weights must simply be divided by 12; when a two-month sample from the full-year is used, the weights must simply be divided by two.

#### C. SPECIFYING SAMPLING ERROR

Since the estimates of the characteristics of food stamp households are based on a sample of households, the estimates are subject to sampling error. One important indicator of the magnitude of the sampling error associated with a given estimate is its standard error. Standard errors measure the variation in estimated values which would be observed if multiple replications of the sample were drawn.

In consultation with a sampling statistician, MPR has computed standard errors associated with the estimated values of key variables for the 1986 and 1987 "Characteristics" reports.<sup>3</sup> In addition, we have outlined methods for estimating the standard error of other variables for which standard errors have not been calculated directly. After consulting with a sampling statistician and reviewing our current procedures used to estimate the standard errors of variables contained in the two-month extracts, MPR has determined that our current procedures are fully applicable to a full-year file. Therefore, we will maintain these procedures for specifying sampling errors when processing the 1989 full-year file.

#### D. DOCUMENTING THE PROCESS

The final step in producing the full-year analysis file will be to fully document the process and to deliver the full-year file in SAS format to FNS. MPR will produce documentation that provides a full description of 1) each variable on each file and its source, indicating whether it was reported or constructed, plus the weights and program parameters of the file; and 2) each

<sup>&</sup>lt;sup>3</sup>See U.S. Department of Agriculture, 1990, for a discussion of procedures used to estimate the standard errors.

edit that was undertaken, including the nature of the editing problem and the steps taken to correct it, also documented in a flow chart.

# III. PREPARATION OF THE "CHARACTERISTICS" REPORT BASED ON THE FULL-YEAR FILE

In the past, FNS has issued reports entitled <u>Characteristics of Food Stamp Households</u> based on the IQCS files described above. These reports describe in detail the demographic and economic characteristics of FSP participants, identify patterns in the characteristics of FSP participants and recent economic developments which could affect them, and assess the reliability of the estimates and the sample. MPR will prepare the tables and text for the upcoming "Characteristics" reports based on full-year IQCS analysis files. Below, we discuss the production of the tables upon which these reports are based and our proposed redesign of the 1989 "Characteristics" report to reflect the switch to the full-year file.

#### A. TABLE PRODUCTION

The analysis files described above are particularly well-suited for producing tables of food stamp household characteristics. In the past, MPR has used SAS programs on micro computers to generate over 60 tables for the "Characteristics" reports. For the full-year file, MPR will switch from using SAS programs to using TPL programs to generate the full-year file tables. TPL programs produce the statistics needed for the tables ten times faster than SAS. This increase in efficiency is especially important for processing the full-year file since the volume of records we will process is six times larger than a two-month file. SAS, for example, takes approximately twenty minutes on a fast 386 personal computer to generate Appendix A Table 2 of the "Characteristics" report, while TPL takes approximately two minutes to generate the same table. The TPL tables will then be imported into WordPerfect table shells, thereby providing the formating power of WordPerfect while bypassing the time-consuming process of data and table shell transcription and typing. This conversion from SAS to TPL will simply expedite the table

production process, allow it to remain on the most cost effective micro computers, and will not influence any other aspect of the data file development or report preparation.

#### B. REPORT FORMAT

MPR will follow the basic content and format of the recent "Characteristics" reports, but will modify the text and tables to reflect data from the 1989 full-year file as well as trends and seasonal variations in the data. As shown in Figure II, our proposed changes to the format of the report focus on the analysis of changes in food stamp household characteristics (Chapter 3) and on additional text tables which reflect seasonal variations in the data. All the existing appendix tables can remain unchanged; they will simply contain yearly averages instead of two-month averages.

Since this report will be the first based on a full-year file, it is important to investigate seasonal changes in food stamp household characteristics. We propose analyzing seasonal changes in the following food stamp household characteristics:

- Average gross and net monthly income, average total deduction, average countable resources, average monthly FSP benefit, average household size and average certification period
- Poverty status of participating households
- Average values of deductions from gross income (standard, earned, dependent care, excess shelter and total deduction)
- Distribution of households by average monthly food stamp benefit
- Changes in the food stamp caseload composition (households with children, elderly, disabled, earners, and public assistance)

These characteristics are contained in 5 draft table shells (see Appendix C).

In the past, data on selected food stamp household characteristics were compared from summer to summer to identify trends in the characteristics from year to year. For the upcoming

#### FIGURE II

# PROPOSED CONTENTS OF THE REPORT ENTITLED "CHARACTERISTICS OF FOOD STAMP HOUSEHOLDS: 1989"

#### **EXECUTIVE SUMMARY**

#### INTRODUCTION

- AN OVERVIEW OF THE FOOD STAMP PROGRAM
  - A. Program Changes Since Last Year
  - B. Program Eligibility Requirements
  - C. Benefit Computation
  - D. Food Stamp Program Participation and Costs
  - E. An Overview of Economic Developments through 1989
- 2. CHARACTERISTICS OF FOOD STAMP HOUSEHOLDS
  - A. Gross Monthly Income
  - B. Net Monthly Income
  - C. Sources of Income
  - D. Deductions from Gross Income
  - E. Food Stamp Benefits
  - F. Assets
  - G. Caseload Composition
  - H. Work Registration
- CHANGES IN FOOD STAMP HOUSEHOLD CHARACTERISTICS\*
  - A. Seasonal Changes in Food Stamp Household Characteristics in 1989
    - 1. Changes in Income
    - 2. Changes in Deductions
    - 3. Changes in Benefits
    - 4. Changes in Household Composition
  - B. Changes in Food Stamp Household Characteristics from Summer 1988 to Summer 1989
    - 1. Changes in Income
    - 2. Changes in Deductions
    - 3. Changes in Benefits
    - 4. Changes in Household Composition

<sup>\*</sup>Our proposed changes focus on this chapter.

#### FIGURE II (continued)

#### **FIGURES**

- 1. Food Stamp Program average monthly participation by individuals, calendar years 1985-1990, by quarter
- 2. Unemployment rate for civilians, calendar years 1985-1990 by quarter (data seasonally adjusted)
- 3. Distribution of FSP households by gross and net incomes, 1989

#### TABLES

- 1. Major economic indicators, 1985-1990
- 2. Poverty status of food stamp households, 1989
- 3. Major sources of income among food stamp households, 1989
- 4. Distribution of households and benefits by poverty line, 1989
- 5. Effect of food stamp benefits on poverty status of food stamp households, 1989
- 6. Work registration status of food stamp participants, 1989
- 7. Seasonal comparison of average values of selected characteristics, 1989
- 8. Seasonal comparison of the poverty status of participating households, 1989
- 9. Seasonal comparison of the value of deductions from gross income, 1989
- 10. Seasonal comparison of the distribution of participating households by amount of monthly food stamp benefit, 1989
- 11. Seasonal comparison of food stamp caseload composition, 1989
- 12. Average nominal and real monthly income of food stamp participants, summer 1988 and summer 1989
- 13. Comparison of poverty status of participating households, summer 1988 and summer 1989
- 14. Frequency and value of deductions from gross income, summer 1988 and summer 1989
- 15. Distribution of participating households by amount of monthly food stamp benefit, summer 1988 and summer 1989
- 16. Sources of change in average food stamp benefits, summer 1988 and summer 1989
- 17. Changes in food stamp caseload composition, summer 1988 and summer 1989

#### **APPENDIXES**

- A. Detailed Tables for the 50 States and the District of Columbia
- B. Poverty income guidelines for 1989
- C. Maximum allowable net monthly food stamp income eligibility standards in 1989
- D. Value of standard and maximum dependent care and excess shelter deductions in continental United States and outlying areas in 1989
- E. Value of maximum coupon allotment (Thrifty Food Plan) in continental United States and outlying areas in 1989
- F. Source and reliability of estimates
- G. Sampling error of estimates
- H. Data collection instrument
- I. List of previous reports in this series

1989 "Characteristics" report, we cannot easily compare the 1989 data, which are based on the full-year file, to earlier years, which are based on two-month summer samples. Therefore, we propose generating data for the summer months of 1989 to compare to the summer data of 1988. Specifically, we would generate summer data for 1989 on income, deductions, benefits, and household composition. (Appendix D contains the table shells we would replicate for the summer of 1989; they are identical to the tables in Chapter 3 of the "Characteristics of Food Stamp Households: Summer 1987.") For later reports, this additional effort would not be necessary; we would simply compare data based on full-year files from year to year.

#### **BIBLIOGRAPHY**

- Anderson, Patricia. "Strategies for Editing the Food Stamp Quality Control Data." Draft report prepared for the Food and Nutrition Service, USDA. Washington, D.C.: Mathematica Policy Research, Inc., 1989.
- U.S. Department of Agriculture, Food and Nutrition Service. <u>Characteristics of Food Stamp</u> <u>Households: Summer 1987.</u> Alexandria, VA: Food and Nutrition Service, USDA, 1990.

## APPENDIX A: INTEGRATED REVIEW SCHEDULE

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#### APPENDIX B: WEIGHTS FOR A TWO-MONTH SAMPLE

***********			PARTIC	PARTIC	JULY/AUG AVERAGE		JULY/AUG AVERAGE				WEIGHT TIMES
STATE	EIDE	STRATUM	JULY 1988	AUGUST 1988	MONTHLY HH (UMADJ)		MONTHLY HH (ADJUSTED)		UNROUNDED	ROUNDED	SAMPLE SIZE
•••••			1700	1700		ONARE	(10103157)	*****		ROORDED	3145
Connecticut	9		39,327	40,447	39,887		39,887	135	295.4593	295	39,825
Maine	23		36,155	36,035	36,095		36,095	135	267.3704	267	36,045
Messachussetta	25	3	130,116	132,092	131,104	.5086	66,679	54	1,234.8055	1,235	66,690
		20				.4914	64,425	152	423.8454	424	64,448
New Hampshire	33		8,889	9,027	8,958	• • • • • • • • • • • • • • • • • • • •	8,958	79	113.3924	113	8,927
New York	36		658,350	657,824	658,087		658,087	219	3,004.9635	3,005	658,095
Rhode Island	44		24,554	24,575	24,565		24,565	152	161.6086		24,624
Vermont	50		14,389	14,405	14,397		14,397	61	236.0164	236	14,396
Delaware	10		10,642	10,689	10,666		10,666	50	213.3100	213	10,650
District of Columbia	11		25,510	25,260			25,385	94	270.0532	_	25,380
Maryland	24		103,754	95,936	99,845		99,845	204	489.4363		99,756
New Jersey	34		135,470	134,928	135,199		135,199	408	331.3701		135,048
Pennsylvania Virginia	42 51		383,415 133,649	391,843 134,074			387,629 133,862	200 241	1,938.1450 555.4419	•	387,600 133,755
Virgin Islands	78		4,745	4,531	4,638		4,638	49	94.6531		4,655
West Virginia	54		90,686	91,276			4,200	~/	, 41000.	,,	1,000
•		1		•	•	.7444	67,726	122	555.1332	2.7	67,710
		2				.2556	23,255	73	318.5581	319	23,287
Alabama	1		152,535	152,280	152,408		152,408	293	520.1621	520	152,360
Florida	12		240,814	247,446			244,130	370	659.8108		244,200
Georgia	13		170,915	174,084	172,500		172,500	183	942.6202		172,569
Kentucky	21		164,480	164,479	164,480		164,480	270	609.1833		164,430
Mississippi	28		167,635	168,299			167,967	213	788.5775		168,057
North Carolina	37		150,946	150,473			150,710		757.3342		150,643
South Carolina Tennessee	45 47		89,962 184,369	89,351 187,238	89,657 185,804		89,657 185,804		299.8545 868.2407		89,700 185,752
161163366	٠,		104,307	101,230	103,004		165,654	£ 14	300.2407	300	103,172
Illinois	17		408,673	411,634	410,154						
		24				.1404			468.1752		57,564
		25 26				.1072	43,968 53,771	91 78	483.1698 689.3734		43,953 53,742
		42				.6213	254,828	200	1,274.1418		254,800
Indiana	18	74	100,670	100,487	100,579		100,579	188	534.9920	·	100,580
Michigan	26		359,060	359,261	•		359, 161	312	1,151.1554		359,112
Minnesota	27		94,464	95,291			94,878		458.3454		94,806
Ohio	39		439,859	440,017			439,938	211	2,085.0142	2,085	439,935
Wisconsin	55		103,149	102,448	102,799	.2215	22,770	53	429.6201	430	22,790
		6 14				.0788	8,101	30	270.0174		8,100
		22				.6997					71,877
	_								700 0/0/	700	
Arkansas	5 22		80,825	81,172	80,999 237,116		80,999		382.0684 1,203.6320		80,984
Louisiana	35		236,746 45,736	237,485 45,687			237,116 45,712	177	258.2571		237,188 45,666
Oklahoma	40		105,413	103,573			104,493		451.5344		104,594
Texas	48		492,165	495,171			****	,			
		1	·	•	•	.0411			1,352.6503	1,353	20,295
		3 4				.0745					36,780
		•				.0359			1,107.6676		17,728
		5				.1196 .0804	59,043 39,691	29 16	2,035.9549 2,480.6817		59,044 <b>39,69</b> 6
		7				.0584			1,922.0141		28,830
		8				.2045	100,955	30	3,365.1702		100,950
		9				.1201	59,290		2,117.4831	2,117	59,276
		10				.0594			2,094.5628		29,330
		11				.2061	101,745	27	3,768.3324	3,768	101,736
Eolorado	8	_	78,073	78,892	78,483						
		.6				.6582			496.7037		51,688
		14 21				.0268 .3150			75.1190 252.2652		2,100 24,696
							67.166	70			-7,070
ION8	19		67,357	67,098	67,228		67,228		336.1375		67,200

Missouri	29 30		144,668 21,187	146,787 20,412	145,728 20,800		145,728	420	346.9702	347	145,740
		2	•			.6421	13,355	94	142.0783	142	13,348
		21				.3579	7,444	33	225.5800	226	7,458
Nebraska	31		35,981	35,755	35,868		35,868	126	284.6667	285	35,910
North Dakota	38		13,209	13,156	13,183		13,183	57	231.2719	231	13,167
South Dakote	46		16,600	16,600	16,600		16,600	106	156.6038	157	16,642
Utah	49		31,677	32,352	32,015		32,015	124	258.1815	258	31,992
Wyoming	56		9,684	9,269	9,477		9,477	53	178.8019	179	9,487
Alaska	2		9,113	8,665	8,889		8,889	47	189.1277	189	8,883
Arizone	4		78,879	81,250	80,065		80,065	391	204.7685	205	80,155
California	6		584,000	591,000	587,500		587,500	384	1,529.9479	1,530	587,520
Guan	66		3,437	3,513	3,475		3,475	53	65.5660	66	3,498
Hawai i	15		31,481	30,865	31,173		31,173	116	268.7328	269	31,204
Idaho	16		20,730	20,815	20,776		20,776	114	182.2412	182	20,748
Nevada	32		17,204	17,338	17,271		17,271	99	174.4545	174	17,226
Oregon	41		87,354	87, 133	87,244		•				•
•		20	•	•		.2497	21,785	142	153.4134	153	21,726
		40				.7503	65,459	245	267.1788	267	65,415
Washington	53		124,660	124,939	124,800		124,800	392	318.3661	318	124,656
United States		• • • • •	7,007,808	7,039,637	7,023,723		7,023,723	10,797	55,734.9553	55,733	7,023,077

APPENDIX C: TABLE SHELLS FOR SEASONAL COMPARISONS

Table 7-Seasonal comparison of average values of selected characteristics, 1989a

	Fall	Winter	Spring	Summer	Total
C					
Gross monthly income					
Net monthly income					
Total deduction					
Countable resources					
Monthly benefit					
Household size					
Certification period					

<sup>&</sup>lt;sup>a</sup>Fall refers to October through December, Winter refers to January through March, Spring refers to April through June and Summer refers to July through September.

Table 8--Seasonal comparison of the poverty status of participating households, 1989<sup>a</sup> (percent of all households)

Gross income as a percentage of poverty	Fall	Winter	Spring	Summer	Total
50% or less					
51 - 100%					
101 - 150%					
151% or more					
Number of households (in thousands)					

<sup>&</sup>lt;sup>a</sup>Fall refers to October through December, Winter refers to January through March, Spring refers to April through June and Summer refers to July through September.

Table 9--Seasonal comparison of the value of deductions from gross income, 1989<sup>a</sup>

Type of deduction	Fall	Winter	Spring	Summer	Total
Standard					
Earned income					
Dependent care					
Excess shelter					
Total deduction					
Number of households (in thousands)					

<sup>&</sup>lt;sup>a</sup>Fall refers to October through December, Winter refers to January through March, Spring refers to April through June and Summer refers to July through September.

Table 10-Seasonal comparison of the distribution of participating households by amount of monthly food stamp benefit, 1989<sup>a</sup>

Average monthly food stamp benefit	Fall	Winter	Spring	Summer	Total
\$50 or less					
51 - 100					
101 - 150					
151 - 200					
201 or more					
Number of households					
(thousands)					
Mean Benefit					

<sup>a</sup>Fall refers to October through December, Winter refers to January through March, Spring refers to April through June and Summer refers to July through September.

Table 11-Seasonal comparison of food stamp caseload composition, 1989<sup>a</sup>

Households with:	Fall	Winter	Spring	Summer	Total
Children					
Elderly					
Disabled					
Earners					
Public Assistance					
Total					

<sup>a</sup>Fall refers to October through December, Winter refers to January through March, Spring refers to April through June and Summer refers to July through September.

APPENDIX D: TABLE SHELLS FOR YEARLY COMPARISONS

Table 12--Average nominal and real monthly income of food stamp participants, summer 1988 and summer 1989

	Summer 1988	Summer 1989 Nominal Real <sup>a</sup>	Percentage Change Nominal Real
Average gross income			
Per household			
Per person			
Average net income			
Per household			
Per person			

<sup>&</sup>lt;sup>a</sup>Adjusted by change in CPI for all items between summer 1988 and summer 1989.

Table 13--Comparison of the poverty status of participating households, summer 1988 and summer 1989 (percent of all households)

Gross income as a percentage of poverty	Summer 1988	Summer 1989
50% or less		
51 - 100%		
101 - 150%		
151% or more		
Number of households (in thousands)		

Table 14—Frequency and value of deductions from gross income, summer 1988 and summer 1989

	Percent of households with deduction		Average value of deduction <sup>a</sup>		
Type of deduction	Summer	Summer	Summer	Summer	Percent
	1988	1989	1988	1989	Change

Standard

Earned income

Dependent care

Excess shelter

Medical

Total deduction<sup>b</sup>

Excluding standard Including standard

Number of households (in thousands)

<sup>&</sup>lt;sup>a</sup>For households claiming the deduction.

<sup>&</sup>lt;sup>b</sup>Average total deduction to which households were entitled. The average deduction actually claimed was \$xx in summer 1988, \$xx in summer 1989.

Table 15-Distribution of participating households by amount of monthly food stamp benefit, summer 1988 and summer 1989

Average monthly	Summer 1988	Summer 1989
food stamp benefit	Nominal	Nominal Real
\$50 or less		
51 - 100		
101 - 150		
151 - 200		
201 or more		
Number of households		
Number of households (thousands)		
Mean Benefit		

<sup>&</sup>lt;sup>a</sup>Benefit adjusted by change in CPI for food at home between summer 1988 and summer 1989.